

GENERIC NAME:

MORPHINE SULFATE

112.19

BRAND NAME: Morphine Sulfate

CLASS: narcotic agonist

Mechanism of Action:

Alleviates pain by acting on the pain receptors in the brain; elevates pain threshold.
Depresses central nervous system; depresses brainstem respiratory centers; decreases responsiveness to changes in PaCO_2 .
Increases venous capacitance (venous pooling), vasodilates arterioles, reducing preload and afterload.
Histamine release.

Indications and Field Use:

Analgesia, especially in patients with burns, myocardial infarction, or renal colic.
Pulmonary edema (cardiogenic).

Contraindications:

Respiratory depression
Head injuries
Elevated Intra cranial pressure
Asthma, relative
Abdominal pain, relative

Adverse Reactions:

CV: Brady or tachydysrhythmias, orthostatic hypotension
Resp: Respiratory depression or arrest
CNS: Excess sedation, seizures to coma and arrest, pupillary constriction
GI: Nausea and vomiting, GI spasm
Derm: Histamine release may cause local urticaria

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

CNS side effects (including respiratory depression) can be reversed by naloxone.

Adult Dosage:

IV Dose: Administer 1-3 mg increments slow IV PUSH (over 1-5 minutes) until desired effect.

Pediatric Dosage:

100-200 $\mu\text{g/kg}$ slow IV push

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Routes of Administration:

Usually given IV in the field, can be given IM or SC.

** IV infusion may be transported on interfacility transfers, infusion pump required.

Onset of Action:

Seconds

Peak Effects:

20 minutes

Duration of Action:

2-4 hours

Dosage Forms/Packaging:

10 mg/ml ampules, **only**

Arizona Drug Box Supply Range:

PARAMEDIC: 2 (20 mg)

INTERMEDIATE: 2 (20 mg)

Special Notes:

- > Schedule II narcotic.
- > Watch for histamine effects (wheals, urticaria) proximal to IV site; contact medical control
- > Correct hypotension before administration.
- > Maximum respiratory depression 7-10 minutes after administration; can be reversed with naloxone; use caution in patients with emphysema.
- > Infusions: IV infusions of morphine sulfate may be transported, however an infusion pump is required.

** Indicates special training requirement